

CLAIMS

What is claimed is:

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A1 } 1. A system for managing user preference settings in a vehicle, the system comprising:

an electronic control unit including a microcontroller and an electronic control unit memory, the electronic control unit controlling accessory devices;

a data controller in communication with the microcontroller and adapted to receive user preference data; and

a PDA including a PDA processor, PDA memory, and transceiver in electrical communication, the PDA managing the user preference data, and the transceiver adapted to transmit the user preference data from the PDA to the data controller;

wherein the preference data is transmitted from the PDA to the electronic control unit via the data controller, the microcontroller controlling the accessory devices according to the user preference data.

2. The system according to Claim 1, wherein the PDA transmits the user preference data to the data controller by infrared transmission.

3. The system according to Claim 1, wherein the PDA transmits the user preference data to the data controller by radio frequency transmission.

4. The system according to Claim 1, wherein the user preference data includes preference settings for vehicle accessory devices.

5. The system according to Claim 1, wherein the data controller includes a wireless transceiver adapted to wirelessly receive the user preference data from the transceiver of the PDA.

6. The system according to Claim 5, wherein the data controller further includes an encoder/decoder to facilitate communication between the wireless transceiver and the microcontroller.

7. The system according to Claim 1, wherein the microcontroller controls the accessory devices according to the user preference data through a driver circuit.

8. The system according to Claim 1, wherein the electronic control unit memory includes a code portion and a data portion, the code portion including a control algorithm executed by the microcontroller to control the accessory devices, the data portion being written with the user preference data and read by the microcontroller when executing the control algorithm.

9. The system according to Claim 8, wherein the data portion has a data structure including a driver ID, and the microcontroller reads particular data from the data structure by referencing the driver ID when executing the control algorithm.

10. The system according to Claim 1, further comprising a keyless receiver adapted to receive a control signal from a key fob and in communication with the microcontroller to transmit the control signal.

11. The system according to Claim 10, wherein the electronic control unit memory includes a code portion and a data portion, the code portion including a control algorithm executed by the microcontroller to control the accessory devices, the data portion being written with the user preference data and read by the microcontroller when executing the control algorithm.

12. The system according to Claim 11, wherein the data portion has a data structure including a driver ID, and the microcontroller reads particular data from the data structure by referencing the driver ID when executing the control algorithm.

13. The system according to Claim 11, wherein the data portion has a data structure including a driver ID, the driver ID identifying one of multiple user preference data sets stored in the data portion of the electronic control unit memory.

14. The system according to Claim 13, wherein the driver ID further identifies user preference data based on a key fob control signal.

15. The system according to Claim 1, wherein the user preference settings are input to the PDA, the PDA executing code in the PDA memory to convert the user preference settings to the user preference data transmitted from the PDA to the electronic control unit.

16. The system according to Claim 15, wherein the PDA is adapted to connect to a network for receiving code to be executed when converting the user preference settings to user preference data.

17. The system according to Claim 16, wherein the network is the Internet.

18. The system according to Claim 16, wherein receiving code includes updating code in the PDA memory.

19. A management system for vehicle preference settings, the system comprising:

a data controller adapted to receive user preference data;

a microcontroller in communication with the data controller, the microcontroller receiving user preference data and controlling vehicle accessory devices; and

a memory including a code portion and a data portion, the code portion including a control algorithm executed by the microcontroller to control the accessory devices, the data portion being written with the user preference data and read by the microcontroller when executing the control algorithm.

20. The system of Claim 19, wherein the data portion has a data structure including a driver ID, and the microcontroller reads data from the data structure by referencing the driver ID when executing the control algorithm.

21. The system of Claim 19, wherein the user preference data includes preference settings for vehicle accessory devices.

22. The system of Claim 19, wherein the data controller is adapted to receive user preference data from a PDA.

23. The system of Claim 19, wherein the microcontroller is adapted to receive user preference data from a vehicle input device.

24. The system of Claim 19, wherein the microcontroller transmits output to a driver circuit for controlling vehicle accessory devices when executing the control algorithm.

25. The system of Claim 19, wherein the data controller includes a wireless transceiver adapted to wirelessly receive the user preference data.

26. The system of Claim 25, wherein the wireless transceiver of the data controller wirelessly receives the user preference data from a PDA.

27. The system of Claim 19, wherein the data portion has a data structure including a driver ID, the driver ID identifying one of multiple user preference data sets stored in the data portion of the memory.

28. The system of Claim 27, wherein the driver ID further identifies user preference data based on a key fob control signal.

29. A method for programming a vehicle electronic control unit with user preference data for accessory devices, the steps comprising:

transmitting user preference data to a data controller in communication with a vehicle electronic control unit;

transmitting the user preference data from the data controller to a microcontroller of the vehicle electronic control unit;

writing the user preference data to a data structure in a memory of the vehicle electronic control unit; and

reading the preference data when executing an algorithm stored in the memory of the vehicle electronic control unit to control a vehicle accessory device.

30. The method of Claim 29, further comprising the step of updating the preference data and the memory of the vehicle electronic control unit by transmitting updated preference data to the data controller in communication with the vehicle electronic control unit, transmitting the updated preference data from the data controller to the microcontroller of the vehicle electronic control unit, and writing the updated preference data to the data structure in the memory of the vehicle electronic control unit.

31. The method of Claim 29, further comprising the step of inputting the preference data into a PDA prior to transmitting the preference data to the data controller in communication with the vehicle electronic control unit.

32. The method of Claim 29, wherein the step of reading the preference data further includes identifying a portion of the preference data to be read when executing the algorithm.

33. The method of Claim 32, wherein the step of reading the preference data further includes identifying the portion of the preference data by referencing a driver ID.

34. The method of Claim 32, wherein the step of reading the preference data includes identifying the portion of the preference data to be read when executing the algorithm by receiving a key fob control signal indicating a driver ID.

35. A vehicle preference management system, comprising:
 a memory including a control algorithm;
 a processor in communication with the memory for executing the control algorithm, the processor writing input user preference data to the memory; and
 a data controller in communication with the processor, the data controller transmitting the user preference data to a vehicle electronic control unit.

36. The vehicle preference management system of Claim 35, wherein the user preference data has a data structure including a driver ID, and an electronic control unit reads the user preference data by referencing the driver ID.

37. The vehicle preference management system of Claim 35, wherein the user preference data includes preference settings for vehicle accessory devices.

38. The vehicle preference management system of Claim 35, wherein the data controller transmits the user preference data to a microcontroller of the vehicle electronic control unit.

39. The vehicle preference management system of Claim 35, wherein the data controller includes a wireless transceiver.

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40. The vehicle preference management system of Claim 39, wherein the user preference data is transmitted by infrared transmission.

41. The vehicle preference management system of Claim 39, wherein the data controller transmits the user preference data by radio frequency transmission.

42. The vehicle preference management system of Claim 35, further comprising an input device, and wherein user preference settings are written to the memory via the input device, the processor executing code in the memory to convert the user preference settings to the user preference data transmitted from the data controller to the electronic control unit.

43. The vehicle preference management system of Claim 35, wherein the code executed by the processor is written to the memory when received from an Internet website.